

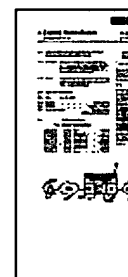
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? Title: **US6377927: Voice-optimized database system and method of using**
 ? Derwent Title: Voice-optimized database system for online shopping, has item data with phonemes and phoneme vector in searchable field of each record
[Derwent Record]
 ? Country: **US** United States of America
 ? Inventor: **Loghmani, Masoud**; Potomac, MD 20854
Korangy, Fred F.; Annapolis, MD 21401
 ? Assignee: None
 ? Published / Filed: **2002-04-23** / 1998-10-07
 ? Application Number: **US1998000167486**
 ? IPC Code: **G10L 21/06**;
 ? ECLA Code: **G06F17/30E**; G10L15/26A;
 ? U.S. Class: **Current: 704/275; 704/270;**
Original: 704/275; 704/270;
 ? Field of Search: **704/275, 270, 256, 231, 246, 257**
 ? Priority Number: 1998-10-07 **US1998000167486**
 ? Abstract: A voice-optimized database system and method of audio vector valuation (AVV) provides means to search a database in response to a spoken query. Audio vectors (AVs) are assigned to phonemes in the names or phrases constituting searchable items in a voice-optimized database and in spoken queries. Multiple AVs can be stored which correspond to different pronunciations of the same searchable items to allow for less precision on the part telephone callers when stating their queries. A distance calculation is performed between the audio vectors of database items and spoken queries to produce search results. Existing databases can be enhanced with AVV. Several alternate samples of a spoken query are generated by analyzing the phonemic string of the spoken query to create similar, alternate phonemic strings. The phonemic string of the spoken query and the alternate phonemic strings are converted to text and used to search the database.
 ? Attorney, Agent or Firm: **Roylance, Abrams, Berdo & Goodman, L.L.P. ;**
 ? Primary / Assistant Examiners: **Korzuch, William**; McFadden, Susan



Parent Case:

CROSS REFERENCE TO RELATED APPLICATION

Related subject matter is disclosed and claimed in co-pending U.S. Patent Application of Masoud Loghmani et al., filed Oct. 6, 1998 and entitled "Telephony-Enabled Electronic Shopping System" (attorney's file 34999).

Family: None

First Claim: [Show all 13 claims](#)

What is claimed is: 1. A voice-optimized database system for allowing users to access an electronic shopping cart to purchase items offered through an online shop using spoken queries comprising:

- a memory device for storing records for said items; and
- a processing device connected to said memory device and operable to retrieve selected ones of said records from said database in response to said spoken queries, said memory device being configured to store for each of said records at least one phoneme vector for parsing of said memory device by said processing device in response to said spoken queries;
- wherein each of said records has at least one searchable field comprising item data that is characterized by phonemes, said phonemes being assigned respective values, said phonemes having similar pronunciation being assigned similar values, each said phoneme vector comprising said values corresponding to said phonemes in said at least one searchable field.

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PDF	Patent	Pub.Date	Inventor	Assignee	Title
	US5291583	1994-03	Bapat	Racal-Datcom, Inc.	Automatic storage of pers objects in a relational sch
	US5715314	1998-02	Payne et al.	Open Market, Inc.	Network sales system
	US5745681	1998-04	Levine et al.	Sun Microsystems, Inc.	Stateless shopping cart fo
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	US5761280	1998-06	Noonen et al.	8x8, Inc.	Telephone web browser a and method

	US5799278	1998-08	Cobbett et al.	International Business Machines Corporation	Speech recognition system using a hidden markov model to recognize a number of trained to recognize a group of phonetically dissimilar
	US5802526	1998-09	Fawcett et al.	Microsoft Corporation	System and method for displaying and navigating interactive voice response
	US5806030	1998-09	Junqua		Low complexity, high accuracy clustering method for speech recognizer
	US5806033	1998-09	Lyberg	Telia AB	Syllable duration and pitch determine accents and stress speech recognition
	US5809462	1998-09	Nussbaum	Ericsson Messaging Systems Inc.	Method and apparatus for and training a neural network phoneme recognition
	US5991712	1999-11	Martin	Sun Microsystems, Inc.	Method, apparatus, and program automatic generation of lexicon for speech recognition system

Foreign
References:

None



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